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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,745	12/16/2003	Nam-Hyong Kim	Q78338	3344

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EXAMINER
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PANWALKAR, VINEETA S

ART UNIT	PAPER NUMBER
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2611

MAIL DATE	DELIVERY MODE
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12/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/735,745

Applicant(s)

KIM, NAM-HYONG

Examiner

Vineeta S. Panwalkar

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11, 14-25, 28 and 30-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11, 15-25 and 31-34 is/are allowed.
- 6) ☒ Claim(s) 14, 28 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 14, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fullerton et al. (US 6937667 B1, previously cited), hereinafter Fullerton in view of Low et al. (US 2002/0190881 A1), hereinafter, Low.
- 1a. Regarding claims 14, 28 and 30 Fullerton shows a UWB (Column 1, lines 45-50 and column 2, lines 25-28) pulse sequence generation method (apparatus of Fig.

17 performs claimed method and Fullerton also shows a computer readable recording medium for recording a program as per claim 30(Column 43, line 1 – column 44, line 40)) comprising:

- a pulse sequence generator (Fig. 17, unit 1722) which generates
- a first UWB pulse sequence (Fig. 17, output comprising "0"s is interpreted as first UWB sequence (Fig. 8, pulse 802); see column 14, line 25- column 15, line 45; column 23, lines 5-50) using a predetermined random number sequence (Fig. 17, code generator 1712 is interpreted as providing claimed predetermined random number sequence; Column 7, lines 35-50, column 15, lines 60-68; column 23, lines 5-15); and
- a second UWB pulse sequence (Fig. 17, output 1732 comprising "1"s is interpreted as claimed second sequence (Fig. 8 pulse 804)). (Column 14, line 25- column 15, line 45; column 23, lines 5-50).

(It is further pointed out that if applicant did intend to claim first and second pulse generators, Fullerton does show a first pulse generator (Fig. 9, pulser 922) and a second pulse generator (Fig. 9, pulser 924), as claimed (See column 14, line 25 – column 16, line 28)).

Thus, Fullerton shows all the limitations claimed, but fails to explicitly disclose whether the second pulse has pulse width that is wider than the pulse width of the first UWB pulse sequence by a predetermined degree.

In the same field of endeavor, however, Low shows method and apparatus for UWB communications with a UWB pulse sequence generation apparatus

comprising wherein the second pulse has pulse width that is wider than the pulse width of the first UWB pulse sequence by a predetermined degree (Paragraph [0058], wherein pulse width of bit "1" is wider than pulse width of bit "0" by a fixed amount (claimed predetermined degree)).

Thus, it would have been obvious to a person of ordinary skill in the art to adjust the width of the pulses as shown by Low in the receiver shown by Fullerton, because Low's technique improves quality and has simpler system configuration (Paragraph [0062]).

***Allowable Subject Matter***

2. Claims 1-11, 15-25 and 31-34 are allowed.

***Contact Information***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vineeta S. Panwalkar whose telephone number is 571-272-8561. The examiner can normally be reached on M-F 8:30-5:00.  
  
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tesfaldet Bocure  
Primary Examiner  
Art Unit 2611

